

Meeting Summary

RURAL LEVEE REPAIR GUIDELINES WORK GROUP MEETING #6

NOVEMBER 13, 2013

California Department of Water Resources, JOC Room LL-20

3310 El Camino Ave. Sacramento, CA

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Summary of Action Items

1. Center for Collaborative Policy (CCP) will send notes of today's meeting. (Nov 22nd)
2. CCP will draft an email to accompany the revised guidance out to key stakeholders (Nov 22nd)
3. Revise RLRG document and send document to key stakeholders for review. (Nov 22nd)
4. DWR will provide the CVFPB a progress report on the RLRG process. (November meeting)
5. Work group will meet in January to discuss public comments. (Date TBD)
6. DWR will present draft RLRG document at the Board meeting (Jan 24th)

DWR Welcome and Opening Comments

Meeting Facilitator Adam Sutkus (Center for Collaborative Policy) welcomed members and interested parties to the meeting and led introductions around the room.

Dave Wheeldon (RLRG Program Manager, DWR) thanked everyone for attending the work group meeting. Mr. Wheeldon noted that this is the 6th meeting and the process is progressing towards completion of the Rural Levee Repair Guidelines (RLRG) document. Mr. Wheeldon stated that the meeting will focus on highlighting changes to the document and discussing the rollout process and timeline to completion. Since the last work group meeting, the bulk of the document editing has been completed with members' reviews and input. DWR is pleased with the way that the document is shaping up. Mr. Wheeldon shared that he had solicited input from Joe Countryman (Board member) and Ali Porbaha (Board staff) regarding the completion process and potential final steps.

General Work Group Comments

Mr. Sutkus asked the work group for general observations and comments regarding the process thus far. The following comments were offered:

- A member observed that the RLRG document has evolved since the beginning of the work group process and inquired about the expected benefits of this document to the rural community. Mr. Wheeldon responded that at the beginning of the process, there were hopes that this process will provide a path to streamline permit requirement for repairs but it had quickly become apparent that this goal is beyond the scope of this group process. Streamlining permit requirement by regulatory agencies needs to be done independently of this process. The value of the RLRG document will as a resource on common repair practices and implementation that can be referenced by the local agencies.
- A member raised concerns that the RLRG document will be presumed to be the rural levee counterpart to the Urban Levee Design Criteria (ULDC) document that provides Engineering criteria for urban levee design. The focus on guidelines rather than design criteria may need to be better articulated in the introduction of the document and communicated to the community.
- A member stated that the RLRG document represents good progress. However, RDs look for ways to repair levees with limited funds for engineering design and construction, particularly when working with Federal levees. Although this document is titled 'guidelines' it may be interpreted as standard of care. It will be important to clearly explain the intended and limited use of the RLRG document as it becomes public.
- A member said that the RLRG document does not offer sufficient distinction regarding the different types of rural levees. The focus of the document appears to be project levee

repair and many of the rural levees are not project levees thereby setting higher repair standards then may be necessary.

- A member clarified that the purpose of the RLRG document is to repair levees to a safe level without assessments and design. Additional improvements may still need to be addressed through the permitting process. Reference to ACOE 408 major and minor permits should be removed from the document since the document provides guidance and not design criteria. The repairs that are described in the document are repairs that are generally approved by the USACE. If a chronic problem continues and a patch repair is not sufficient then engineering design and analysis may be required to correct the problem. This situation is beyond the scope of the RLRG document.
- A member was concerned that a patched repair problem may be inspected by the USACE and not approved. A USACE representative replied that patches are routinely accepted as proper ways of addressing a problem.
- A member added that the RLRG document provides guidelines for repair and patch work but many rural levees have long history of repair and repeat failure. It is important to acknowledge that bringing a levee back to its original condition may not avoid a repeat failure. The document may need state, in the introduction, that repeat failure needs to be addressed through other processes and that permitting may be required.
- A member suggested that the RLRG document be linked and referenced as future funding program requirements because Delta levee districts do not have money for Engineering design and repair and maintenance programs are expensive. Mr. Wheeldon responded that DWR does have funding programs that may be linked to the RLRG document. This document may then be used for funding allocation decisions. Mr. Wheeldon asked for clarification on whether the linking to funding should be included in the document.

Mr. Sutkus reviewed the agenda for the work group meeting which was set to focus on review of changes to the RLRG document and a discussion of the roll out process. It is expected that the RLRG process will be completed by late January.

RLRG Document Overview

Mr. Wheeldon emphasized the importance of the work group process in developing the RLRG document. In the preface and throughout the document, text was changed to reflect the work group process.

The work group discussed the term 'engineering judgment' as referenced throughout the document. A member suggested that it is important to reference 'engineering judgment' because it allows flexibility – not all repairs require analyses but engineering judgment can be used to tailor a repair to the levee and the extent of the problem. Members added that local maintenance agencies (LMAs) have experience and will be able to decide when a fix is sufficient

and when additional engineering analysis is needed. A member suggested that the document be reviewed section by section and that explicit reference to engineering judgment be added as needed. The work group discussed the definition of 'engineering judgment' as it applies to Professional Engineers consultation.

Section 1. Introduction

Mr. Wheeldon reviewed highlighted changes to the Introduction. The document title has been changed to 'guidelines' rather than 'improvement criteria' since improvement implies improving to a specific level of protection which is not the focus of the document. The following changes were discussed:

Section 1-2, 2nd paragraph

- Change text: "Therefore, the implementation of the guidelines MAY require..."
- Members agreed that the document does not need more specific references to title 23 changes or USACE process.

Section 1.3

- Section is adequate as is.
- Members discussed how the work group endorsement of the document should be addressed. The work group may want to discuss consensus following the key stakeholders/public review in subsequent work group meetings.

Section 2. Rural Levee Repair Criteria, General Guidelines

Section 2.1

- DWR consulted with FESSRO and added text to explain DWR's approach to environmental stewardship.
- A member suggested that demonstrating environmental stewardship as part of levee repair is a constant struggle. Enhancement may not be appropriate for every project. Enhancement may be accomplished through funding incentives. Mr. Wheeldon offered to review and revise the document language from 'required' to 'suggest'.

Section 2.2

- A member suggested removing the last bullet item.

Section 2.3

- A member offered that the term 'assessment water surface elevation' is generic and the sentence in which it is used is unclear.

- A member suggested using a water level reference of 'known or 3-feet below the crest'. Other members felt that it would be best to leave the water level reference as undefined since the document focuses on repair and not design. The repair templates were intended to bring a weak point to match existing surrounding conditions.
- A member suggested that the last sentences in the 2nd paragraph be taken out and change the wording in the 2nd paragraph from 'would be required' to 'may be required'.
- 1st paragraph should end with '..a levee may have experienced.'" and the last sentence should be taken out.

Section 2.5.1

This section was modified to note that unlike other levees, delta levees are frequently loaded.

- A member noted that the templates have minimum designs that are similar to urban design minimums and may not be applicable to delta levees. Mr. Wheeldon replied that the document states that minimum levels can be revised with analysis. This should be noted on the templates as well.

Section 3. Rural Levee Repair Criteria, Standard Templates

Section 3.1

Mr. Wheeldon asked the work group members if the general implementation guidelines, as written, are too specific.

- A member said that if the goal is to avoid engineering design, than specific information is helpful.
- A member suggested revising the text to state: "consider a method of defined specification of compaction can be used".
- Members suggested that it may not be appropriate for the document to be this specific and it would be best to leave it to the discretion of the LMAs.

Section 3.2

- Members agreed that the additional text for the Erosion section is acceptable.

Section 3.2.1, Figure 3-1

- A member suggested that instead of referencing a slope of 3:1, it is best to refer to adjacent conditions in erosion and stability repairs. If a problem recurs, than a levee prism projection may be needed.
- For the bedding layer, a member suggested that it may be advisable to let LMAs decide on the type of bedding layer that should be used. Another member recommended a layer of sand instead of bedding.

- Members discussed the distinction between template E-1 and template E-2 (minor repair). The work group discussed the need for bedding and suggested that it may be helpful to add a note in templates and reiterate what is stated in the document text.
- A member suggested taking out the dashed line in the templates.
- A member suggested that instead of referencing the levee prism, it may be more helpful to distinguish between major and minor erosion based on the depth of erosion (24 inches). Embankment material may be required if the erosion depth is more the 24-inches.

Section 3.5.4

Mr. Wheeldon point out that this section was added to the document with template SS-5.

- A member suggested that a note be added to the document text and template that state that this repair may benefit from engineering analysis. Use of the wrong material may be detrimental to this type of repair.
- A member suggested that the repair be linked to adjacent levee conditions rather than specify a required crown width (20-feet as stated).
- A member noted that there are several places where there is a reference to engineering analysis but it is prefaced with ‘may use’.

Definitions

Mr. Wheeldon asked the work group to consider the term ‘engineering Judgment’ as used in the document and to suggest an appropriate definition. There are two potential definitions to consider: (1) professional engineer’s consultation or (2) job and field expertise. Mr. Wheeldon asked if it would be helpful to explicitly define the term. A member said that further evaluation beyond local expertise may require professional engineering advice and should be appropriately referenced in the document text, potentially as part of the introduction in section 1.2. The group agreed that the term ‘engineering judgment’ refers to professional engineering consultation.

USACE representatives offered to provide a definition for Section 408 Permit.

Contributing Authors and Work Group Members

Mr. Wheeldon asked work group members to verify their name and affiliation in this section.

A discussion ensued around the issue of whether the RLRG document could be defined as a ‘consensus’ product from the work group. This may be a possibility when the document is fully completed, however Mr. Sutkus outlined to the group that the terminology and write up in the final document regarding a ‘consensus’ document would have to be vetted and agreed upon. The form of consensus could take the form of a simple statement of consensus, to formal

signatures on the final document. The format the work group would be comfortable with, if consensus is desired, will be discussed at a later date once the key stakeholder review is completed.

Templates

Mr. Wheeldon asked the work group members to review the templates. Work group members offered the following revisions to the templates:

- Remove the 3:1 slope reference.
- Delete the word 'separator' in the reference to geotextile.
- Reference adjacent conditions rather than specific crown width.
- Revise major/minor erosion templates to align with document text.
- Revise bedding note to align with document text.
- In Figures 3-2 and 3-4, the reference to underseepage and true seepage is unclear. LMAs may benefit from a general terminology.

Roll out and Completion Timeline

Mr. Sutkus reviewed the roll out and completion timeline graphics. Mr. Wheeldon is scheduled to provide a status report on the RLRG process in the upcoming CVFPB meeting.

Mr. Wheeldon reviewed the next steps which include revising the document into a final draft document that will be ready for an external communication and review. It is expected that the report will be completed by the end of November to allow enough time for public review. Due to the public review phase, a work group meeting may not be needed.

DWR will develop a public message, geared towards the work group members and their constituencies, to explain the focus of the document and the public review process. The message will explain the work group process and emphasize that the purpose of the review is ground testing for errors or omissions rather than revisiting the focus of the document. A member suggested using the text in the 1st paragraph of the preface for the public review message. DWR will send the message with a link to the RLRG document to work group members for distribution.

The work group discussed the extent of the public review. A member inquired if the Central Valley Flood Protection Board (Board) may want to hold hearings and their own public review. Mr. Porbaha (Board staff) replied that since the Board is not looking to adopt the RLRG document it is unlikely that the Board will pursue a public review process. It was suggested that a first public review will focus on key stakeholders and based on the level of changes and input a wider second review can be pursued. It is important to give key stakeholders, the potential users of the document, the opportunity to review the RLRG document before a wider public review or distribution.

The targeted document review should include the following key stakeholder:

- California Central Valley Flood Control Association (CCVFCA)
- Local management Agencies (LMAs)
- Reclamation Districts (RDs)
- State Farm Bureaus (Local Farm Bureaus)
- State Regional Flood Management Planning
- NGO- coordinating committee (Nature Conservancy, etc.)

Work group members considered whether the review should be extended throughout the state or limited to the Central Valley.

Work group members will be provided with public review comments summary to be discussed in a January work group meeting.

Next Steps

Mr. Sutkus reviewed the timeline and next steps:

- November 22nd: Key stakeholder review of the RLRG document.
- January 3rd: Public review comments are due.
- January: Compile public review comments.
- January: Work group meeting, a week after comments are due. (Date TBD)
- Jan 24th: Present draft RLRG document at the Board meeting that was developed through work group process and with feedback from key stakeholders
- Addressed all key stakeholders review comments.
- Send RLRG document to a wide public review as needed.

Attendance

Name	Affiliation
Work Group Members	
Bair, Lewis	RD 108
Bradner, Graham	GEI Consultant
Cosio, Gilbert	MBK Engineers
Labrie, Gilbert	DCC Engineering
Larson, Ryan	USACE
Perlea, Mary	USACE
Porbaha, Ali	CVFPB
Reinhardt, Ric	MBK Engineering
Storesund, Rune	Storesund Consulting
Sullivan, Steven	Mead & Hunt, Inc
Tillis, Kevin R.	Hultren-Tillis Engineers
Interested Parties	
Hollister, Nekone	DWR-FP11B
Phillips, Lisa	CSU Sacramento
DWR RLRG Team	
Wheeldon, Dave	DWR-FMO
Ara, Syada	DWR-FMO
Boen, Brian	URS
Millet, Richard	DWR Geo-Levee
Sutkus, Adam	CCP
Kalman, Orit	CCP